

camera the two and a half inches, after taking the first, and before proceeding with the second. Beautiful pictures are taken by both these methods. The relief—that is, the degree in which the images of solid bodies are made to come forward in the stereoscope—is dependent on the distance between the two lenses used in producing the pictures. If the lenses be too near each other, the picture will be too flat, because the dissimilarity will be too little; and if there be no dissimilarity, but the two pictures be precisely alike, there will be no relief or appearance of solidity at all. If, on the other hand, the lenses be too far apart, the relief will be too great, and absurd and unnatural effects will be produced. We are sorry to observe, in looking over the stereoscopic slides now offered for sale in such abundance everywhere, that there seems to prevail a general tendency to exaggeration and the love of startling effects, among photographers. Numbers of the landscapes now sold are taken at too wide an angle. It is true, relief is gained, but truth is sacrificed, and we have a false representation of nature, instead of a faithful one—such as an avenue of trees represented double its actual length, and so on. When human figures are the subjects, this defect is more easily detected, and therefore does not so often occur.

It is fortunate for the public that stereoscopes may be and are manufactured at a price which places them within general reach. We can conscientiously commend the proper use of them to the domestic circle. With a good selection of slides, they may be made the medium not only of cheerful and innocently-exciting amusement, but of sound, solid instruction as well. Their value in this respect is becoming recognised more and more every day, as was indeed foretold by Dr. Brewster long ago. It is likely that even now, though the stereoscope is not more than seven years old, the binocular views adapted for its use outnumber the whole of the steel and copper plates engraved during this century, and hundreds of new pictures are taken daily. All the capitals of Europe, the passes of the Alps and Pyrenees, the classic relics of Rome, the antiquities of Pompeii and of Egypt, the wonders of the Holy Land—these, in addition to thousands upon thousands of samples of home scenery and domestic portraiture, are open to the selection of the purchaser. Hitherto the fireside traveller has circumnavigated the globe in books. He may now repeat the process, and see with his own eyes, by means of the stereoscope.

The above is but an imperfect glance at the subject; but we have pleasure in clearing those of our readers who are desirous of seeing the matter scientifically handled, to Dr. Brewster's "Treatise on the Stereoscope," which may be had at any bookseller's.

19 MAR 24
WHAT WE PAY FOR.

A PLEA FOR THE DOCTORS.

DOCTORS' bills pretty generally excite a grumble. People often entertain the idea that, in return for their hard cash, they receive certain drugs of infinitely small value, but for which they pay most enormously. In fact, the charges of medical men

form one of John Bull's favourite sources of grumbling. He often appears to labour under the impression that he is taken an unfair advantage of, forgetting, honest man, what he is really paying for. Who has not seen an old crone remove the cork from a medicine bottle, sniff the odour of its contents, and put it down with a curl of the lip and the remark, "It's only a pen'north of so and so"—naming some familiar drug—"with a little colouring."

"Yes," says the doctor, "that may be; but it is *my* knowledge, good lady, which makes the pennyworth rise to the value of a pound. Had it depended on *you*, it would be still on the chemist's shelf, instead of soothing the pains you could only witness, not alleviate, just because you were not alchemist enough to transmute it into something more precious than gold to the sufferer who heard you sneer at its simplicity a minute ago."

No one will deny that medical men do wisely in disguising, as far as possible, the nature of the remedies they use from the mass of their patients. Frequently, did these know of what the medicines are composed, they would not believe their complaints *could* be subdued by such simple materials as the skill of the doctor transforms into most powerful curative agents. Moreover, it is admitted that the influence of the mind over the body is such, that the knowledge of the matter employed would perhaps so far weaken the patient's faith in its efficacy, that he would receive much less benefit than if he remained in ignorance. Every person who sneers at the medicine, or the doctor, in the invalid's presence, actually helps to retard his recovery.

Paterfamilias tardily draws out his purse to pay the doctor's long bill. If he were called upon for his cash at the moment when the life of some one dear to him is in danger, the strings would fly open rapidly enough; but at a distance of several months, the case is widely altered. He only feels that, in return for the gold he is about to lay down, he can show nothing tangible, save perhaps a few empty phials with soiled labels, on which the number of tablespoonfuls is set forth. He is apt to think, now the mistress looks rosy and handsome again, and little Jack has forgotten what measles and scarlatina mean, that perhaps there was not so much danger after all, and that his alarm was premature. So he puts down the money with the impression that he is paying rather dear, and considers doctors in general as a necessary evil.

Now, in order to induce you, dear madam, to be less sceptical with regard to the value of his medicines, and you, worthy sir, to part with the amount of his bill less reluctantly, let me tell you what has to be done before a medical man possesses the knowledge to mix the dose, and what you really pay for beside physic. The expense, as well as the study required for the thorough education of a general practitioner in a country town—for I write principally from provincial experience—is very considerable. It begins with the schoolboy; for everybody knows that a much more costly education is needed by one intended for a liberal profession, than by another who is meant for a tradesman. Not that I would insinuate that *any* amount of education is too great for a man, whatever may be his station in life; but a greater share is

absolutely necessary in the one case than in the other. Suppose, then, the mere scholastic part finished, and a boy qualified to become an apprentice. A premium varying from one to three hundred pounds must be paid, according to the position and practice of the party to whose care the youth is consigned. During his apprenticeship, which must last five years, there are probably no expenses beyond supplying him with clothes and pocket-money. But his time is of no pecuniary value; he does not earn a shilling. His apprenticeship ended, the really costly part of his course of study may be said to begin. He must attend lectures on Anatomy, Botany, Forensic Medicine, Anatomical Demonstrations, the Principles and Practice of Medicine, with a number of others; beside allowing twelve months for Clinical Lectures in an hospital. Of some of these, he must attend two courses, and each course is expected to comprehend at least forty-five lectures. These, with attendance at an hospital, where he is made acquainted with the practical part of medicine and surgery on a very extended scale, are supposed to occupy two years. For each course of lectures he attends, he must have a certificate that he has done so, and pay a sum of six, ten, twelve guineas or upwards. After due preparation, he presents himself before the Court of Examiners of the Apothecaries Company, and, if found qualified, receives a licence to practise. That no mean amount of proficiency is requisite to enable a man to pass these examinations with credit, is proved by the fact that a sixth, and sometimes even a fourth, of the number who present themselves, are rejected. The Diploma of the College of Surgeons is also considered essential to the respectability of the general practitioner, though by many it is regarded as merely honorary. Still it causes considerable expense, and, at the lowest computation, the two years spent by the hospital student entail a cost of five hundred pounds; though double that sum is more frequently expended. We see, therefore, that before one penny can be earned, as much money is laid out on the general practitioner's education only, as would suffice to apprentice a boy to an ordinary trade and place him fairly in business, with a very tolerable stock on his shelves.

But our young doctor is not so easily launched. Suppose him of an age when he may prudently commence practice. This would scarcely be until he has served some time as an assistant to a more experienced medical man, for very young doctors are not generally preferred. What does he still need? Are his past years of study all-sufficient for his requirements? By no means. A certain quantity of the various articles enumerated in the *Materia Medica* must stock his surgery, and a large number of surgical instruments—all costly matters—are indispensable. Supplied as above, he is ready for patients; but unless he can commence with a good family connection, our young practitioner often finds that after all these years of toil and expense, he has still his own way to make, and must struggle into employment sufficient for a livelihood—literally, by hairbreadths.

It sometimes happens that the outlay detailed above exhausts his funds; and when this is the case, few can guess what up-hill work he has before him—how he must struggle and pinch to

preserve the appearance exacted by his position, and how he will again and again be elbowed out of his place by others, who are able to begin with a little capital and "cut a dash."

Again, there is generally a prejudice in favour of a married medical man, which sadly diminishes the chance of success for one who, at first starting, is too poor to take to himself a wife.

But it is not my purpose to detail the early trials of a poor professional man. Sufficiently graphic descriptions of such cases are already common enough in print. Passing over this stage, we assume that he is a successful practitioner, with an established reputation. Under these, the most favourable circumstances for a member of the profession, is there, let me ask, any other man, be his occupation what it may, so entirely the slave of the public as himself? The labourer, when his daily toil is over, shoulders his spade and returns to his home secure of rest; the artisan leaves the workshop, and the tradesman closes his windows and bars his doors against customers. The lawyer's office is an impenetrable place after a certain hour; but the medical man can never be sure of uninterrupted repose. Summon him when or where you may, he must obey. Night or day, at bed or board, at home or wending his way thither, in heat or cold, hot or dry weather, it is all the same. You, who can place your heads on your pillows secure from interruption, or who can sit down to your Christmas dinner, sure that, unless some unaccountable chance betide, you will have no occasion to leave the joyous group ranged round your mahogany—think of these things. How would you like to be roused from your peaceful first sleep, perhaps, too, the first for nights, or compelled to put the savoury limb of goose aside untasted, to hurry forth among the snow, uncertain when you would be at liberty to return? Often have I heard the charge for night attendance grumbled at, when I have known that the luckless doctor would have gladly paid thrice the sum to purchase permission to rest that one night in peace.

In opposition to those who grudge paying the charges of the medical man, is another class, who probably cause him still more annoyance. I allude to those who imagine themselves ill, and persist in being physicked when disordered imagination is their only ailment. These pet diseases are always very difficult to cure—far more so than real sickness. Judge how unpleasantly the medical man must be situated who is called in to attend such. Should he profess to administer a remedy for what he knows has no real existence, he will offend his own sense of truth and honesty. On the other hand, let him try to persuade the individual that he ails nothing, and therefore stands in no need of his assistance, and he will probably smile and thank you for your candour. But what will follow? In nearly every case the result will prove that you have given offence and lost your patient, who will apply to some less scrupulous member of the profession, by whom he will be physicked to his heart's content. In due time the new doctor, or some patented nostrum, will receive the credit of having wrought a marvellous cure, and in addition to this, it will be said that *you* asserted the patient ailed nothing, because you were ignorant of the nature of his complaint.

An amusing instance illustrative of this last assertion occurred a short time ago to a medical friend of mine. He was called to attend a rich old bachelor, who had dismissed his former doctor because, as he said, "the fellow evidently did not know what was the matter with him." After listening to a long-winded account of his new patient's symptoms, my friend was convinced that whatever physic he might require "for the mind diseased," he needed none for the body, and he resolved to convince him of the fallacy of his fears by a simple experiment, and also, if possible, put him in a good humour with his former medical man. He accordingly coloured and moulded a little soft bread into the form of pills, and sent them with directions for use. As he anticipated, this most harmless specific effected a cure. His patient knew not how to be grateful enough for the benefit he had received. As I before said, my friend never intended to take a selfish advantage of this successful trick; but when the patient's good humour was at its height, he revealed the nature of the pretended medicine, and begged him to recall his judgment respecting his own predecessor, who had doubtless found it difficult to prescribe for what was no disease. He was mistaken, however, in supposing his evident disinterestedness would produce the effect it certainly deserved. The patient had received a wound in his tenderest point. He could have sooner forgiven anything. An ill-assumed smile took the place of the radiant one chased away by my friend's revelation. He thanked him, bowed him out, and—employed a third doctor.

Medical men are, however, not the only ones whose bills are a subject of complaint. Most persons, but especially Englishmen, have an itch to possess something for their money—something they can see, handle, or exhibit. In their dealings with the doctor, the lawyer, the minister of the gospel, and the teacher, they cannot have this. A man seldom shows his doctor's bill, except to rail at its amount. He commonly speaks of an honest lawyer as a person as difficult to get hold of as the great sea-serpent; hints now and again at the pastor's anxiety for the loaves and fishes; and grinds down the luckless pedagogue to so low a rate of remuneration, that he must either retort by starving his pupils—both as regards bodily and mental sustenance—or starve himself. To prove the correctness of this last case, see the rate at which board and education are advertised in cheap schools at the present day, both—but of what kind?—being offered for £16 or £18 per annum.

But all the employers of professional persons quoted above, are presumed to pay at some time; but another class must be noticed. I allude to those—and my own observation proves their existence—who, not having received goods, visible money's worth, at the hands of a professional man, think he is less injured by the long-credit system than is the tradesman from whom they buy their bread, beef, or groceries. They will say in such a case, "Oh! well, he has not actually lost anything, because he gave nothing but a little time, a few sheets of MS., or drugs of a trifling value." Is it, then, nothing to lose the interest on that capital of learning which it has cost him many years of laborious study to accumulate? That was as much

his hoarded wealth as the money earned, penny by penny, with the sweat of the brow. Is time nothing? Time, and the knowledge to use it well, are often all a man has to depend on, and of every species of capital that can be enumerated, the only one no future efforts can restore. It is a capital, too, which daily decreases in value; for, when old age and infirmities come upon us, it is, in a pecuniary sense, of small account.

I might greatly extend this paper, but I think I have written enough. As I have done so with an honest purpose, I doubt not it will induce some to look at certain phases in the lives of professional men—and, let me add, of women also—which had not before been presented to their notice. Few, who walk through this world with their eyes open, but could furnish abundant proof of the truth of my assertions, though I believe them to be much underdrawn. I selected the medical profession as the example of what most professional men have to contend against, because many do not consider what they really pay for; and I was especially induced to do so, for it is one with the members of which *all* are brought into communication at some time. But I cannot conclude without adding that, while that profession is perhaps the most arduous a man can select whereby to gain his bread, none affords so many opportunities for winning the confidence, good-will, and gratitude of all classes of his fellow-creatures. It is no light thing to know that the exercise of your skill has called down on your head the blessing of the widowed mother, fearing to lose her last comfort, or the child who a few short hours ago dreaded being left an orphan. Truly these are pleasures worth the winning, without reckoning the glow of thankfulness which must fill the heart at the thought of having been the instrument, under God, of restoring happiness to many a hearth, though the power to do it had been purchased at an infinitely greater cost than it ever was by the hardest-worked member of the medical profession.

PAYSON'S DYING EXPERIENCE.

"WERE I to adopt the figurative language of Bunyan, I might date this letter from the land of Beulah, of which I have been for some weeks a happy inhabitant. The celestial city is full in my view. Its glories beam upon me, its breezes fan me, its odours are wafted to me, its sounds strike upon my ears, and its spirit is breathed into my heart. Nothing separates me from it but the river of death, which now appears but as an insignificant rill that may be crossed at a single step, whenever God shall give permission. The Sun of righteousness has been gradually drawing nearer and nearer, appearing larger and brighter as he approached, and now he fills the whole hemisphere; pouring forth a flood of glory, in which I seem to float like an insect in the beams of the sun; exulting, yet almost trembling, while I gaze on this excessive brightness, and wondering, with unutterable wonder, why God should deign thus to shine upon a sinful worm. A single heart and a single tongue seem altogether inadequate to my wants. I want a whole heart for every separate emotion, and a whole tongue to express that emotion.

"O, my sister, my sister! could you but know what awaits the Christian; could you only know so much as I know, you could not refrain from rejoicing, and even leaping for joy. Labours, trials, troubles would be nothing: you would rejoice in afflictions, and glory in tribulations; and, like Paul and Silas, sing God's praises in the darkest night and in the deepest dungeon."—*Last days of Dr. Payson*, published in a Tract by the Religious Tract Society.

Varieties.

THE "KING OF ALL BLACK MEN."—No man was more impressed with an idea of the dignity attachable to the trappings of royalty than Eyamba; and so he must have a carriage. But the horses soon died, after dragging out life for some time; the skeletons of two only were visible about Duketown, perfect *anatomies vivantes*, at the time of my first visit there. (Horses not being native to this part of the country, it puzzled the lexicographers very much to find a name for them in their Efik tongue—the language spoken at Old Kalabar. At length they hit upon the term "Euang makara," which signifies "white man's cow;" and, to carry the absurdity further, entitled Eyamba's carriage, "Ufok euang makara," which literally means "white man's cow-house.") When I beheld the nature of the streets and roads in and around the town, it was a marvel to me how Eyamba could find a place broad or level enough for four wheels to roll upon. But he did make out a few yards meet for that purpose; and there it was his custom to have the carriage drawn before him by a number of slaves, whilst he walked after it, with his shining brass crown upon his head, and an immense parti-coloured parasol held aloft by a strong-armed man. The Irishman who got into a sedan chair, and finding the bottom out of it, said "he might as well be walking, were it not for the grandeur of the thing," had a nearer semblance to state than this gander-brained monarch, who often used to boast of his desire to see Wellington and Napoleon, that he might show his pre-eminence over them, and who was accustomed to sign all his letters and documents as Eyamba v, "King of all black men!"—*Hutchinson's "Impressions of Western Africa."*

RUSSIAN LAUNCHES.—The barques are built on the banks of the Tchoussouwaia, with their sides to the stream; they are flat-bottomed, with straight sides, 125 feet long, have a breadth of 20 feet, and are from 8 to 9 feet deep; the head and stern are formed by a sort of obtuse angle, the ribs of birch trees, selected for the purpose, and the planking of deal; there is not a nail nor an iron bolt in them, they being put together with wooden pins; and they must be built the year before they are launched. The decks are formed with strong boards framed together, but not fastened to the barque—a precaution absolutely necessary, as they are often sunk in deep water after striking the rocks. When this happens, the deck floats, by which the men are saved. Each barque, whose cargo has a weight of 9000 poods, requires thirty-five men to direct it; and one with a cargo of 10,000 poods has a crew of forty men. Oars usually of forty-five or fifty feet long, with strong and broad blades, guide it at the head and stern; and a man sits upon a raised platform in the middle to look out and direct its course. I saw several of these vessels launched; it was a curious spectacle. On the top of the craft there were about twelve men; two gave or rather sang the words of command, which was followed by the others. About 400 men, and numbers of women, stood ready, with long poles, to push the vessel towards the stream, which was done most lustily, all singing a chorus, and each verse bringing the vessel much nearer the water. The first I saw launched occupied three hours, much of the physical force of the operators having been spent in singing.—*Atkinson's "Oriental and Western Siberia."*

REVELATIONS OF THE MICROSCOPE.—One of the most beautiful works which have lately been published, is a series of photographs from objects magnified in the microscope. The last number is devoted to the bee; whose sting excels the lancet in the elaboration, care, and finish of its manufacture; whose hairy tongue is like a living hair glove, most elaborately designed to collect the materials for honey; and whose powerful wing is aided by a mechanical contrivance of the most beautiful ingenuity. Every one knows, or may know, that the bee has two wings on each side. At the edge of one wing runs a stiff nerve, which in the microscope is a bar. Along this bar at frequent intervals are ranged semicircular barbed hooks, like the half of a ring, so placed that the edge of the other wing lies within the semicircles which clasp it, and at the

same time permit it to play freely, as the rings of a window-curtain move along the brass bar. By this contrivance the two wings become united as one, yet freely play from different hinges: "Design" is a human word, implying in its very nature human imperfection, yet it is the only term which we can apply to the purpose which runs through formations like that of a bee's wing. It is the microscope with its minute search that enables us to discover this design in everything that we can dissect—in all living creatures and the parts thereof, to millions upon millions, always tending to life and happiness. Who can examine these illustrations of the power of the Creator and of the law which rules over his work, and not feel an impulse to sing in his soul "Gloria in excelsis?"—*Spectator.*

AN OLD CITY CUSTOM.—In the year 1705, Robert Dowe by his will gave an annual sum of £1 6s. 8d. to the sexton of St. Sepulchre, upon condition that a bell should be tolled, and the following words said to the prisoners in Newgate on the night preceding their execution:—

"All you that in the condemned hole do lie,
Prepare you, for to-morrow you shall die;
Watch all, and pray, the hour is drawing near,
That you before the Almighty must appear;
Examine well yourselves, in time repent,
That you may not to eternal flames be sent;
And when St. Sepulchre's bell to-morrow tolls,
The Lord alone have mercy on your souls."

On the night before executions take place, a person presents himself at the prison door, on the part of the sexton, and offers to perform the prescribed service, but is refused admission, and told his services are not required. This sum, £1 6s. 8d., is derived from property in Smithfield, and is continued to be paid to the sexton.—*City Press.*

A BATH IN THE DEAD SEA.—If there were words to express an agony that no one has experienced, I would use them here. I cannot conceive worse torture than that plunge caused me. Every inch of my skin smarted and stung as if a thousand nettles had been whipped over it. My face was as if dipped in boiling oil, the skin under my hair and beard was absolute fire, while my eyes were balls of anguish. I howled with pain; but I suspended when I heard Whiteley's voice. He had swallowed some of the water, and coughed it up into his nose and the tubes under his eyes. The effect was to overcome all pain elsewhere while that torture endured. It came near being a serious matter with him, and as it was, his voice suffered for a week, his eyes and nose were inflamed as if with a severe cold, and the pain continued severe for several days. Recovering our feet with difficulty, we stood pictures of despair, not able to open our eyes, and increasing the pain by every attempt we made to rub them with our wet hands or arms.—*Prince's "Tent Life in the Holy Land."*

ANTIQUITY OF PLACING THE BIBLE IN CHURCHES.—In the register of wills at York, it is recorded that Thomas de Farnyhw, Chancellor of the Church at York, bequeathed at his death, in 1378, a Bible and Concordance to the church of St. Nicholas, at Newcastle, "there to be chained for a common use for the use of his soul." Ceolfriith, abbot of Wearmouth, having caused three copies to be made of the entire Bible, sent one as a present to the pope, and placed the others in two different churches, "to the end that all who desired to read any chapter in either Testament might be able to find at once what they desired." And King Edgar transmitted to every county in his kingdom, copies of the Holy Scriptures for the instruction of the people.

FARNLEY TEETOTAL COAL-PIT.—Upon the extensive mines of Messrs. Armitage and Co., Farnley, are large numbers of teetotallers and Maine Law men, and the visible signs are so clear to a distinguishing physiological observer, of their superior health, strength, endurance, and intelligence, over those who take alcoholic beverages, that, for future encouragement and improvement, a coal-pit bearing the above appellation has been opened, and is now worked by teetotallers only.—*Leeds Mercury.*